| **Eigenvalues of the Correlation Matrix** | | | | |
| --- | --- | --- | --- | --- |
|  | **Eigenvalue** | **Difference** | **Proportion** | **Cumulative** |
| **1** | 8.70254667 | 6.19412458 | 0.5802 | 0.5802 |
| **2** | 2.50842209 | 1.22997734 | 0.1672 | 0.7474 |
| **3** | 1.27844475 | 0.36819826 | 0.0852 | 0.8326 |
| **4** | 0.91024649 | 0.49023842 | 0.0607 | 0.8933 |
| **5** | 0.42000807 | 0.13596118 | 0.0280 | 0.9213 |
| **6** | 0.28404689 | 0.02892347 | 0.0189 | 0.9402 |
| **7** | 0.25512342 | 0.02662379 | 0.0170 | 0.9573 |
| **8** | 0.22849963 | 0.06453616 | 0.0152 | 0.9725 |
| **9** | 0.16396347 | 0.08690972 | 0.0109 | 0.9834 |
| **10** | 0.07705375 | 0.00884392 | 0.0051 | 0.9886 |
| **11** | 0.06820983 | 0.01558817 | 0.0045 | 0.9931 |
| **12** | 0.05262166 | 0.02506849 | 0.0035 | 0.9966 |
| **13** | 0.02755318 | 0.00929679 | 0.0018 | 0.9984 |
| **14** | 0.01825639 | 0.01325266 | 0.0012 | 0.9997 |
| **15** | 0.00500372 |  | 0.0003 | 1.0000 |

Like the table above, I would keep the variables whose cumulative are over 0.85. They are more significant.

So we will extract the following variables:

**Age games at\_bats**